

## **Written evidence submitted by LINK**

### **About LINK**

Superpedestrian is the world's leading e-mobility innovation company. Born out of the Massachusetts Institute of Technology (MIT), Superpedestrian has spent eight years engineering the safest and most reliable micromobility vehicles.

When the shared micromobility industry emerged, Superpedestrian recognised that the critical challenges of rider safety and city compliance could be greatly mitigated with Vehicle Intelligence. After 24 months of designing, engineering, testing, and validating its e-scooter with its senior team of 50 engineers, the company launched its next generation scooter featuring Vehicle Intelligence. In January 2020, Superpedestrian deployed and began operating its shared scooter fleet under the brand LINK.

LINK is the next exciting phase in Superpedestrian's quest to provide human-scale transport in cities and displace a significant number of urban car trips. We want to bring our best-in-class vehicles and operations to as many communities as possible, but we will do it in partnership with cities. LINK understands that micromobility will be a crucial urban transportation option as our cities continue to grow and as the world seeks to return to a semblance of normal through COVID-19.

LINK combines experts from the fields of urban planning, transportation, and robotics to design and engineer solutions for our changing urban environments. LINK's unparalleled e-scooter fleet provides a far safer vehicle for riders and a vastly improved compliance system for cities.

### **Whether the legislation for e-scooters is up to date and appropriate**

The legislation for e-scooters, in its current form, which prohibits e-scooter use on all but private land in the UK, is outdated and inappropriate given the need for new mobility solutions to urban transportation.

We welcome the steps taken by the Department for Transport in reviewing the laws governing e-scooter use in the UK and the creation of e-scooter trials.

We have set out our views on the future of the UK's e-scooter regulatory regime in a response to the Department for Transport and would be happy to share further detail with the Committee upon request.

### **To what extent e-scooters have positive benefits, for instance relating to congestion and promoting more sustainable forms of transport**

E-scooters provide a number of important societal benefits. Firstly, use of e-scooters has been proven to reduce car use and therefore reduce levels of congestion and emissions in urban centers.

Cities such as London, Birmingham, Manchester and many others, are facing extensive congestion and pollution caused by rapid urbanisation that is increasing gridlock and putting severe pressure on public transportation systems. In the UK, more than two-thirds of car journeys in congested urban areas are less than three miles. E-scooters could play a significant role in the decongestion and decarbonisation of these urban centres. Data shows that globally 20-50% of e-scooter journeys replace car use. Given how reliant several UK cities are upon car use, there is a considerable opportunity for e-scooters to play a role in reducing dependence on cars.

E-scooters can also reduce costs and reliance on personal vehicle ownership. To truly reduce car use, urban centres need to ensure they are providing an adequate mix of active transport, public transportation systems and micromobility, for journeys slightly beyond the usual walking range. When the public feel confident in the transport mix available to them, and that using these transport options is more affordable than purchasing, taxing, insuring and fuelling a vehicle, mass take-up will follow and car ownership will reduce.

**Where in the urban environment e-scooters could be used (e.g. road, pavement, cycle lanes), and how this could impact on other road users and pedestrians, including people who have visual impairments or use mobility aids**

E-scooters are most effectively operated in cycle lanes where they are separated from road traffic. E-scooters travel at similar speeds to bicycles and international best practice shows that they seamlessly fit in cycle lanes, as is the case in Berlin.

In the longer term the Government, should seek to consider investing in separated infrastructure for cars and forms of micromobility. This could dramatically increase uptake of micromobility and active travel in urban centers, reducing car usage and with it, congestion and pollution.

**Whether there should be advice or compulsory requirements to use specific safety equipment when using an e-scooter; Whether there should be safety and environmental regulation for the build of e-scooters, and what this might entail**

Superpedestrian believe that rules and advice are easier to understand, operate and enforce when they are simple. As such we believe that e-scooters should be regulated in a similar way to bicycles given that they weigh similar amounts, travel at similar speeds, have similar vehicle dynamics and that there is widespread familiarity with bicycle rules. This principle should apply to helmet use, which should be incentivised but not be required as they are with bicycles.

All over the world, countries with the highest use of safety gear are the most dangerous for cyclists. Wherever helmet use has been made compulsory, there has been no corresponding drop in head injury unless there is also a drop in cycling rates. We believe that safety measures should be delivered through the design of e-scooters.

In the design of e-scooters we believe the following should be required on all devices to make sure they are safe for the public to use:

- Dual brake levers connected to two independent, front and rear mechanical brake
- Zero exposed cables to ensure devices are tamper resistant
- 10-inch diameter wheels to ensure devices are not vulnerable to road inconsistencies
- Geofencing that can respond in under 1 second to ensure devices are able to react in time to reduce conflicts with pedestrians and to inspire confidence in policy makers and e-scooter users.

Speed and inertia are the primary factors that govern safety. We therefore believe that maximum motor power should be viewed as a resource that allows the vehicle to adapt to more strenuous conditions, and should not be the focus of definition. Limiting top speed and requiring proper braking systems will more directly accomplish the UK's safety goals.

Given the intensity of embedded carbon and aluminum in the manufacture of e-scooters, to ensure, that e-scooters are delivering the full environmental benefits that they are capable of, operators should be encouraged to produce durable scooters of high quality which will be in operation for at least one year.

### **The experience of other countries where e-scooters are legal on the roads.**

The UK has a unique advantage in establishing new e-scooter regulations given the opportunity to learn from international best practice.

In 2017, e-scooter sharing took cities by storm, clocking nearly [40 million](#) rides in its first full year. Its rapid growth proved that people were ready for shared, electric transport and that the electric e-scooter was an attractive mode.

Also notable, though, was that the e-scooters being deployed on city streets were not appropriate for shared use. The models operators were using suffered from short life spans, mechanical failures, battery fires, and worse. Furthermore, they struggled to stay in compliance with city requirements to prevent pavement riding, and could not reliably enforce parking, speed limit, and no-ride restrictions.

With the opportunity to learn from this, the UK should seek to establish regulations which ensure that e-scooter use is safe and reliable; that geofencing and battery life are at the forefront of e-scooter development; and that compliance with city rules is core, all of which can foster an enjoyable and reliable form of micromobility for urban centres.

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